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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/615,323

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Michael Dieter Kollmann

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EXAMINER

YIGDALL, MICHAEL J

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/615,323	Applicant(s) KOLLMANN ET AL.	
	Examiner Michael J. Yigdoll	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office action is responsive to Applicant's reply filed on February 15, 2008. Claims 26-35 are pending.

Response to Amendment

2. The rejection of claims 26-44 under 35 U.S.C. 112, second paragraph, is withdrawn in view of Applicant's amendment.

Response to Arguments

3. Applicant's arguments have been fully considered but they are not persuasive.

Applicant argues that "Marick does not mention that an exception is a value specific to program activity" and contends that "the whole idea behind the exception handler of Marick is to be non-specific to program activity" (remarks, page 6).

However, the examiner respectfully submits that the language of the claims does not patentably distinguish them over the teachings of the references. The claim recites a "trap value specific to the program activity." Here, "the program activity" refers to the program activity that is monitored (where the claim recites "monitoring program activity occurring during execution of a computer program"). Thus, a reasonable interpretation is that the trap value is specific to monitored program activity. In Marick, the exception is indeed specific to monitored program activity. The monitored program activity is the source of the exception.

Applicant further states that "Marick characterizes the exception handler as being top-level" and contends, "One of ordinary skill in the art would understand the term top-level to be

applicable to any program activity, as opposed to low-level, which is particular to specific program activity” (remarks, page 6).

However, the examiner again notes that the claim indicates merely that the trap value is specific to monitored program activity. In other words, the trap value is specific to any program activity that is monitored. The claim does not imply that the trap value is specific to a particular type or a particular instance of monitored program activity. Nonetheless, where Marick describes the top-level exception handler, Marick also indicates that the exception handler is for a particular application (see page 13).

Accordingly, given a broad and reasonable interpretation of the claims, the teachings of Marick would have suggested to those of ordinary skill in the art, “writing the trace history buffer to the log file if a trap value specific to the program activity is detected within the logged trace record.”

Applicant argues that “the threshold analysis described by Marick occurs before the exception handler performs any task” and contends, “In order for the top-level exception handler to catch all otherwise uncaught exceptions, the exception handler must allow the thresholds to first be utilized” (remarks, page 6).

However, the examiner respectfully points out that an uncaught exception that ultimately reaches the top-level exception handler was necessarily “undetected” in any preceding exception handlers. In other words, such an uncaught exception “fails to be detected” in the preceding exception handlers before it reaches the top-level exception handler. Furthermore, one of ordinary skill in the art would appreciate that there are potentially many times when an exception “fails to be detected,” both before and after the time of Marick’s threshold analysis.

Accordingly, given a broad and reasonable interpretation of the claims, the teachings of Marick would have suggested to those of ordinary skill in the art, “writing the trace history buffer to the log file if the trap value specific to the program activity fails to be detected, and if the trace level associated with the logged trace record is subsequently determined to be greater than a predetermined trace history level.”

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 26-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over “The Trace.Java User’s Guide” by Brian Marick (art of record, “Marick”) in view of U.S. Patent No. 5,642,478 to Chen et al. (art of record, “Chen”).

In regard to claim 26, Marick discloses:

- “A method of automatically adjusting a level of trace data collection, comprising:
monitoring program activity occurring during execution of a computer program;
collecting trace data representative of the program activity...” (E.g., see page 10 of 27), wherein logging is program controlled to dump the trace record at when level and then automatically adjust the collection by dumping the history buffer (transient buffer) at a second predetermined level.

- “...writing the trace data to one or more trace records, each of the one or more trace records including a trace level associated therewith, the trace level indicating a severity of the program activity...” (E.g., see page 4-6,) wherein trace records are collected with severity level.
- “...storing the one or more trace records in a trace history buffer located in volatile memory, such that trace records are written to the trace history buffer until the trace history buffer is full, and older trace records are overwritten by newer trace records when the trace history buffer is full, the trace history buffer thereby containing a history of recent trace records...” (E.g., see page 7 of 27,) wherein the transient buffer (trace history buffer) records the most recent messages according to the level set.
Note, see set property, page 10.
- “...comparing, for each trace record stored in the trace history buffer, the trace level to a predetermined threshold value, and writing the trace record to a log file located in persistent storage as a logged trace record if the trace level is greater than the predetermined threshold value...” (E.g., see page 10 of 27,) wherein the threshold for level of trace records is set to determine what trace record level results in logging the trace record. See “setProperty(“TraceLog_default”, “level”)”.
- “...writing the trace history buffer to the log file if a trap value specific to the program activity is detected within the logged trace record...” (E.g., see page 13 of 27), wherein an exception handler catches an exception (value specific to program activity) and dumps the history buffer.

- “...writing the trace history buffer to the log file if the trap value specific to the program activity fails to be detected, and if the trace level associated with the logged trace record is subsequently determined to be greater than a predetermined trace history level...” (E.g., see page 10 of 27,) wherein the threshold for level of trace records is set to determine what trace buffer/transient buffer (trace history buffer) level results in logging the buffer. See “setProperty(“TraceBuffer_default”, “level”)”.

But Marick does not expressly disclose “...upon writing the trace history buffer to the log file, resizing the trace history buffer if a quantity of the one or more trace records in the trace history buffer exceeds a predetermined number of trace records; and resetting and clearing the trace history buffer such that storing of trace records may continue.” However, Chen discloses:

- “...resizing the trace history buffer if a quantity of the one or more trace records in the trace history buffer exceeds a predetermined number of trace records ...” (E.g., see Column 4, lines 1-16), wherein a variable length circular buffer containing trace detail is disclosed.

Marick and Chen are analogous art because they are both concerned with the same field of endeavor, namely, logging trace data in a distributed system. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine Chen’s circular buffer with Marick’s tracing method. The suggestion to combine was disclosed by Chen’s disclosure of ensuring efficient storage of particular data (E.g., see Column 4, lines 8-16).

Similarly, it would have been known to one of ordinary skill in the art, in view of the same teachings of Chen and Marick, at the time of the invention, that “...upon writing the trace

history buffer to the log file, resizing the trace history buffer if it is determined the trace history buffer is in need of resizing; and resetting and clearing the trace history buffer such that storing of trace records may continue.”

In regard to claim 27, the rejections of base claim 26 are incorporated. But, Marick does not expressly disclose “...the trace level is a numeric value.” However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to implement the separate levels with a numeric value. The motivation to do so was provided by Marick’s teaching of program control (page 1 + 10), thereby necessarily coding the different levels of the program in a digital system represented by numeric values (either directly or indirectly).

In regard to claims 28-31 (E.g., see page 10 of 27,) wherein Marick discloses the threshold for level of trace records is set to determine what trace buffer/transient buffer (trace history buffer) level results in logging the buffer. See “setProperty (“TraceBufferdefault”, “level”)”.

In regard to claim 32, the rejections of base claim 26 are incorporated. Furthermore, Marick discloses:

- “...the trap value comprises a condition code unique to an event occurring within the program.” (E.g., see page 13 of 27). Additionally, it is old and well known in the art of computer programming, to implement an exception handler to catch an exception (condition code), wherein an exception is old and well known to be implemented by a program controlled condition that triggers a hardware interrupt signal.

In regard to claim 33, the rejections of base claim 26 are incorporated. Furthermore, Marick discloses:

- “...the trap value comprises a trigger received from a hardware signal.” (E.g., see page 13 of 27). Additionally, it is old and well known in the art of computer programming, to implement an exception handler to catch an exception (condition code), wherein an exception is old and well known to be implemented by a program controlled condition that triggers a hardware interrupt signal.

In regard to claim 34, see claim 1.

In regard to claim 35, the rejections of base claim 26 are incorporated. But, Marick does not expressly disclose “...the log file and the trace history buffer reside on different computer systems that communicate over a network.” However, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to implement the separate components on separate or remote machines. The motivation to do so was provided by Marick’s teaching of remote customer support and the Java distributed system (page 1 + 10), where the remote subsystems are disclosed. Therefore, it would have been obvious to one of ordinary skill in the art to implement different components remotely over a network.

Conclusion

6. Applicant’s amendment necessitated any new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Yigdall whose telephone number is 571-272-3707. The examiner can normally be reached on Monday to Friday from 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on 571-272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael J. Yigdall
Examiner
Art Unit 2192

/MY/

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